

Motorola Solutions, Inc.

V700

FCC 15.247:2022 RSS-247 Issue 2:2017

Bluetooth Low Energy (DTS) Radio

Report: WTVD0085.6 Rev. 3, Issue Date: June 27, 2023





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Last Date of Test: April 25, 2023 Motorola Solutions, Inc. EUT: V700

Test Lab Location: Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 FCC Designated Number: US1294, Location Registration Number: 561783 ISED Designated number: 2834G-1

Radio Equipment Testing

Standards

Specification	Method	
FCC 15.247:2023	ANSI 062 10/2012 FOO KDD 558074 v05-02/2010	
RSS-247 Issue 2:2017, RSS-Gen Issue 5:2018+A1:2019+A2:2021	ANSI C63.10:2013, FCC KDB 558074 v05r02:2019	

Results

Test Description	Result	FCC Section(s)	RSS Section(s)	ANSI C63.10 Section(s)	Comments
Powerline Conducted Emissions	N/A	15.207	RSS-Gen 8.8	6.2	Not required for a battery powered EUT.
Occupied Bandwidth (99%)	Pass	KDB 558074 - 2.1	RSS-Gen 6.7	6.9.3	
Duty Cycle	Pass	KDB 558074 - 6.0	RSS-Gen 3.2	11.6	
DTS Bandwidth (6 dB)	Pass	15.247(a)(2), KDB 558074 - 8.2	RSS-247 5.2(a)	11.8.2	
Equivalent Isotropic Radiated Power	Pass	15.247(b)(3), KDB 558074 - 8.3.1	RSS-247 5.4(d, f), RSS- Gen 6.12	11.9.1.1	
Output Power	Pass	15.247(b)(3), KDB 558074 - 8.3.1	RSS-247 5.4(d, f), RSS- Gen 6.12	11.9.1.1	
Power Spectral Density	Pass	15.247(e), KDB 558074 -8.4	RSS-247 5.2(b)	11.10.2	
Band Edge Compliance	Pass	15.247(d), KDB 558074 -8.5	RSS-247 5.5	11.11	
Spurious Conducted Emissions	Pass	15.247(d), KDB 558074 -8.5	RSS-247 5.5	11.11	
Spurious Radiated Emissions	Pass	15.247(d), KDB 558074 - 8.6, 8.7	RSS-247 5.5, RSS-Gen 6.13, 8.10	11.12.1, 11.13.2, 6.5, 6.6	

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information. As indicated in the Statement of Work sent with the quotation, Element's standard process is to always use the latest published version of the test methods even when earlier versions are cited in the test specification. Issuance of a purchase order was de facto acceptance of this approach. Otherwise, the client would have advised Element in writing of the specific version of the test methods they wanted applied to the subject testing.

CERTIFICATE OF TEST



Deviations From Test Standards

None

Approved By:

Adam Bruno, Operations Manager

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REVISION HISTORY



Revision Number	Description	Date (yyyy-mm-dd)	Page Number
01	Updated configurations.	2023-06-13	14, 15
01	Updated power settings and antennas table.	2023-06-13	13
02	Added FCC ID, IC ID, applicant address to Product Description page.	2023-06-26	11
	Updated IC ID to just IC.	2023-06-27	11
03	Added model number table to Product Description page.	2023-06-27	12
	Added test lab information to certificate of test.	2023-06-27	2

ACCREDITATIONS AND AUTHORIZATIONS



United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Each laboratory is accredited by A2LA to ISO / IEC 17025, and as a product certifier to ISO / IEC 17065 which allows Element to certify transmitters to FCC and IC specifications.

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB) and as a CAB for the acceptance of test data.

European Union

European Commission – Recognized as an EU Notified Body validated for the EMCD and RED Directives.

United Kingdom

BEIS – Recognized by the UK as an Approved Body under the UK Radio Equipment and UK EMC Regulations.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIT / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

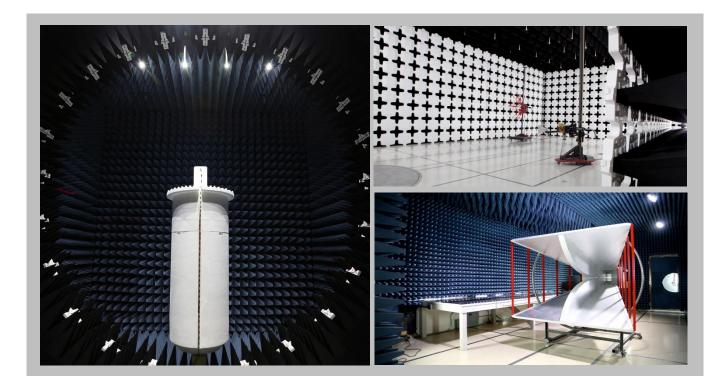
		SCOPE					
	For details on the Scopes of our Accreditations, please visit:						
<u>California</u>	<u>Minnesota</u>	<u>Oregon</u>	<u>Texas</u>	Washington			

FACILITIES





California Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-11 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Oregon Labs EV01-12 6775 NE Evergreen Pkwy #400 Hillsboro, OR 97124 (503) 844-4066	Texas Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Washington Labs NC01-05 19201 120 th Ave NE Bothell, WA 98011 (425)984-6600				
A2LA								
Lab Code: 3310.04	Lab Code: 3310.05	Lab Code: 3310.02	Lab Code: 3310.03	Lab Code: 3310.06				
Innovation, Science and Economic Development Canada								
2834B-1, 2834B-3	2834E-1, 2834E-3	2834D-1	2834G-1	2834F-1				
		BSMI						
SL2-IN-E-1154R	SL2-IN-E-1152R	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R				
		VCCI						
A-0029	A-0109	A-0108	A-0201	A-0110				
Recognized Phase I CAB for ISED, ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA								
US0158	US0175	US0017	US0191	US0157				



MEASUREMENT UNCERTAINTY



Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found in the table below. A lab specific value may also be found in the applicable test description section. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

Test	+ MU	- MU
Frequency Accuracy	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	1.2 dB	-1.2 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.1 dB	-5.1 dB
AC Powerline Conducted Emissions (dB)	3.1 dB	-3.1 dB

TEST SETUP BLOCK DIAGRAMS

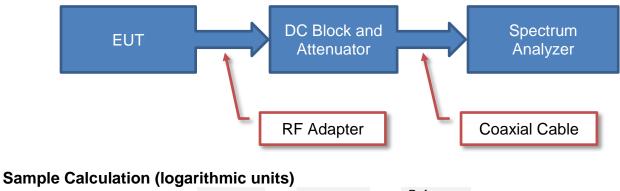


Measurement Bandwidths

Frequency Range (MHz)			Average Data (kHz)		
0.01 - 0.15	1.0	0.2	0.2		
0.15 - 30.0	10.0	9.0	9.0		
30.0 - 1000	100.0	120.0	120.0		
Above 1000	1000.0	N/A	1000.0		

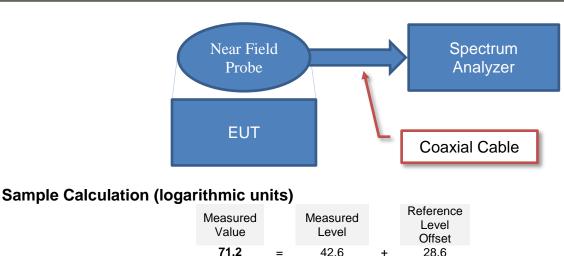
Unless otherwise stated, measurements were made using the bandwidths and detectors specified. No video filter was used.

Antenna Port Conducted Measurements



_	Measured Value	-	Measured Level		Reference Level Offset
	71.2	=	42.6	+	28.6

Near Field Test Fixture Measurements



42.6

+

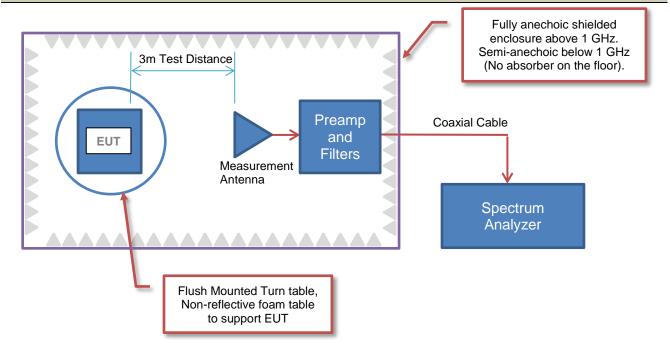
=

28.6

TEST SETUP BLOCK DIAGRAMS



Emissions Measurements

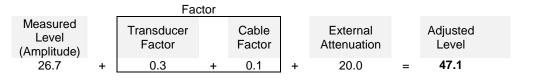


Sample Calculation (logarithmic units)

Radiated Emissions:

			Factor								
Measured Level (Amplitude)	ntenna Factor		Cable Factor		Amplifier Gain		Distance Adjustment Factor		External Attenuation		Field Strength
42.6 +	28.6	+	3.1	-	40.8	+	0.0	+	0.0	=	33.5

Conducted Emissions:



Radiated Power (ERP/EIRP) – Substitution Method:

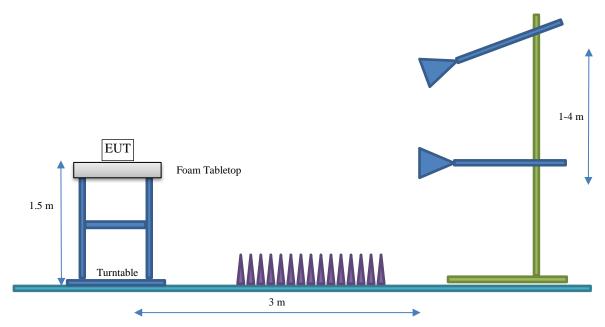
Measured Level into Substitution Antenna (Amplitude dBm)		Substitution Antenna Factor (dBi)		EIRP to ERP (if applicable)		Measured power (dBm ERP/EIRP)
10.0	+	6.0	-	2.15	=	13.9/16.0

TEST SETUP BLOCK DIAGRAMS



Bore Sighting (>1GHz)

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.



PRODUCT DESCRIPTION



Client and Equipment under Test (EUT) Information

Company Name:	Motorola Solutions, Inc.
Manufacturer Address:	415 East Exchange Parkway
City, State, Zip:	Allen, TX 75002
Applicant Name:	Motorola Solutions, Inc.
Applicant Address:	8000 W. Sunrise Blvd
City, State, Zip:	Plantation, FL 33322
Test Requested By:	Navaid Karimi
EUT:	V700
First Date of Test:	December 22, 2022
Last Date of Test:	April 25, 2023
Receipt Date of Samples:	December 21, 2022
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

Body Worn Camera with BT/BLE, Wi-Fi and LTE

Testing Objective:

To demonstrate compliance of the Bluetooth Low Energy (DTS) radio to FCC 15.247 requirements. To demonstrate compliance of the Bluetooth Low Energy (DTS) radio to RSS-247 requirements.

FCC ID:

AZ499FT7164

IC:

109U-99FT7164

PRODUCT DESCRIPTION



Models and Descriptions:

FCC Model Number	ISED Model Number (HVIN)	Product Name (PMN)	Description
WGA00735	NA	V700	V700, BWC, 1080P, FN LTE, W/Rem Batt
WGA00725	NA	V700	V700, BWC, 1080P, VzW LTE, W/Rem Batt - USA (Verizon)
NA	WGA00745	V700	V700, BWC, 1080P, BELL LTE, W/Rem Batt Canada (Bell)
WGA00755	WGA00755	V700	BWC, 1080P, WIFI ONLY
NA	WGA00825	V700	V700, BWC, 1080P, BELL READY, W/Rem BATT- Canada (Bell)
WGA00925	NA	V700	V700, BWC, 1080P, FN LTE, W/Rem Batt - USA (AT&T-first net)
WGA01025	NA	V700	V700, BWC, 1080P, FN READY, W/Rem BATT - USA (AT&T-first net)

FCC/ISED details for common reports - Please note tested one highlighted in yellow

Note:

All Models are the same the only difference in the label. No hardware, mechanical or software change. The difference is due to offering to different customers. The model can be selected by configuration. All models (except WGA00755) are different by Carrier's which require the Carrier's SIM card. WGA00755 – includes only the WIFI and BT, no SIM and no Carrier WIFI 2.4GHz and BT do not transmit at the same time.

POWER SETTINGS AND ANTENNAS



AnThe power settings, antenna gain value(s) and cable loss (if applicable) used for the testing contained in this report were provided by the customer and will affect the validity of the results. Element assumes no responsibility for the accuracy of this information. The power settings below reflect the maximum power that the EUT is allowed to transmit at during normal operation.

ANTENNA GAIN (dBi)

Antenna Label	Provided by:	Frequency Range	Gain (dBi)
ILA Type Metal Internal Antenna	Motorola Solutions Inc.	2402 – 2480 MHz	2.7

The EUT was tested using the power settings provided by the manufacturer which were based upon:

 \Box Test software settings

Test software/firmware installed on EUT:_____

□ Rated power settings

SETTINGS FOR ALL TESTS IN THIS REPORT

Modulation Types / Data Rates	Туре	Channel	Frequency (MHz)	Power Setting
		0 or 37	2402	
BLE GFSK	DTS	20 or 18	2442	
		39	2480	

CONFIGURATIONS



Configuration WTVD0085-1

Software/Firmware Running During Test				
Description	Version			
V700 WiFi FCC Test Firmware	20221215205940			
V700 BLE and BT Test Firmware	20221201210101			
FVIN	1.0.0.56			

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
V700 Conducted Unit (LTE)	Motorola Solutions, Inc.	V700	BWL7-000968

Peripherals in Test Setup Boundary							
Description Manufacturer Model/Part Number Serial Number							
Laptop	HP	HP ZBOOK POWER G7	5CD145HL94				
Laptop Brick	HP	TPN-CA11	990000005084				
USB Serial Board	Motorola Solutions, Inc.	WGA0707	None				

Cables								
Cable Type Shield Length (m) Ferrite Connection 1 Connection 2								
USB 2.0 A to B Cable	Yes	1.8m	No	Laptop	V700 Dock			
USB 2.0 A to DB9 Cable	Yes	1.8m	No	Laptop	USB to Serial Board			
Ribbon Cable	No	0.15m	No	V700 Conducted Unit	USB Serial Board			

CONFIGURATIONS



Configuration WTVD0086-1

Software/Firmware Running During Test				
Description	Version			
V700 WiFi FCC Test Firmware	20221215205940			
V700 BLE and BT Test Firmware	20221201210101			
FVIN	1.0.0.56			

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
V700 Radiated Unit	Motorola Solutions, Inc.	V700	BWL7-000539

Peripherals in Test Setup Boundary						
Description Manufacturer Model/Part Number Serial Numb						
V700 Dock	Motorola Solutions, Inc.	UB02	UB02-028046			
Laptop	HP	HP ZBOOK POWER G7	5CD145HL94			
Laptop Brick	HP	TPN-CA11	990000005084			
USB Serial Board	Motorola Solutions, Inc.	WGA0707	None			
V700 Power Supply	GlobTek, Inc.	GT-21089-1512-W3	708845150/21			

Cables								
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2			
USB 2.0 A to B Cable	Yes	1.8m	No	Laptop	V700 Dock			

MODIFICATIONS



Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
		Spurious	Tested as	No EMI suppression	EUT remained at
1	2022-12-22	Radiated	delivered to	devices were added or	Element following the
		Emissions	test Station.	modified during this test.	test.
		DTS	Tested as	No EMI suppression	EUT remained at
2	2023-04-25	Bandwidth	delivered to	devices were added or	Element following the
		Danuwidin	test Station.	modified during this test.	test.
		Occupied	Tested as	No EMI suppression	EUT remained at
3	2023-04-25	Bandwidth	delivered to	devices were added or	Element following the
		Danuwidin	test Station.	modified during this test.	test.
		Output	Tested as	No EMI suppression	EUT remained at
4	2023-04-25	Power	delivered to	devices were added or	Element following the
			test Station.	modified during this test.	test.
		Equivalent			
		Isotropic	Tested as	No EMI suppression	EUT remained at
5	2023-04-25	Radiated	delivered to	devices were added or	Element following the
		Power	test Station.	modified during this test.	test.
		(EIRP)			
		Power	Tested as	No EMI suppression	EUT remained at
6	2023-04-25	Spectral	delivered to	devices were added or	Element following the
		Density	test Station.	modified during this test.	test.
		Band Edge	Tested as	No EMI suppression	EUT remained at
7	2023-04-25	Compliance	delivered to	devices were added or	Element following the
		-	test Station.	modified during this test.	test.
		Spurious	Tested as	No EMI suppression	EUT remained at
8	2023-04-25	Conducted	delivered to	devices were added or	Element following the
		Emissions	test Station.	modified during this test.	test.
			Tested as	No EMI suppression	Scheduled testing
9	2023-04-25	Duty Cycle	delivered to	devices were added or	was completed.
			test Station.	modified during this test.	mus completed.



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The Duty Cycle (x) of the single channel operation of the radio as controlled by the provided test software was measured for each of the EUT operating modes.

There is no compliance requirement to be met by this test, so therefore no Pass / Fail criteria.

The measurements were made using a zero span on the spectrum analyzer to see the pulses in the time domain. The transmit power was set to its default maximum.

The duty cycle was calculated by dividing the transmission pulse duration (T) by the total period of a single on and total off time.

If the transmit duty cycle < 98 percent, burst gating may have been used during some of the other tests in this report to only take the measurement during the burst duration.



EUT:	V700						Work Order:	WTVD0085		
Serial Number:							Date:	04/25/2023		
Customer:	Motorola Solutions, Inc.						Temperature:	22.8°C		
Attendees:	Navaid Karimi						Humidity:	38.3%		
Project:						Barometric Pres.: 1016 mbar				
	Marty Martin		Pov	wer: 4.2VDC via Battery			Job Site:	TX07		
EST SPECIFICATI	IONS			Test Method						
CC 15.247:2023				ANSI C63.10:2013						
RSS-Gen Issue 5:20	018+A1:2019+A2:2021			ANSI C63.10:2013						
COMMENTS										
All measurment pat	M TEST STANDARD									
•	M TEST STANDARD	Simature	Marty	Marti						
DEVIATIONS FROM		Signature	Merry.	Marti		Number of	Value	Limit		
EVIATIONS FROM		Signature	Monty.	<i>Marti</i> Pulse Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
EVIATIONS FROM		Signature	Marty		Period 625.954 us				Results N/A	
EVIATIONS FROM one onfiguration # LE/GFSK 1 Mbps L	WTVD0085-1	Signature	Marty	Pulse Width			(%)	(%)		
EVIATIONS FROM one onfiguration # LE/GFSK 1 Mbps L LE/GFSK 1 Mbps L	WTVD0085-1	Signature	Manty	Pulse Width 380.662 us	625.954 us	Pulses 1	(%) 60.8	(%) N/A	N/A	
DEVIATIONS FROM lone Configuration # BLE/GFSK 1 Mbps L BLE/GFSK 1 Mbps L BLE/GFSK 1 Mbps N	WTVD0085-1 Low Channel, 2402 MHz Low Channel, 2402 MHz	Signature	Monty.	Pulse Width 380.662 us N/A	625.954 us N/A	Pulses 1	(%) 60.8 N/A	(%) N/A N/A	N/A N/A	
DEVIATIONS FROM None Configuration # BLE/GFSK 1 Mbps L BLE/GFSK 1 Mbps L BLE/GFSK 1 Mbps L BLE/GFSK 1 Mbps N	WTVD0085-1 Low Channel, 2402 MHz Low Channel, 2402 MHz Mid Channel, 2442 MHz	Signature	Marty	Pulse Width 380.662 us N/A 380.207 us	625.954 us N/A 626.199 us	Pulses 1	(%) 60.8 N/A 60.7	(%) N/A N/A N/A	N/A N/A N/A	



		BLE/GESK 1	Mbps Low Chann	el 2402 MHz		
		DEE/OF OR F	Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	380.662 us	625.954 us	1	60.8	N/A	N/A
			· · · · · ·			
Keysight Spectrum An	alyzer - Element Materials Techno 50 Ω DC		NSE:INT	ALIGN OFF		09:58:20 AM Apr 25, 2023
			Trig Delay-100.0 µs	#Avg Typ	e: Voltage	TRACE 1 2 3 4 5 6
		PNO: Fast +++	Trig: Video #Atten: 10 dB			TYPE WWWWWWW DET P P P P P
		IFGain.Low	withen. To up			
Ref	Offset 21.19 dB					Mkr3 734.1 µs 1.47 dBm
5 dB/div Ref Log √	13.00 dBm	1	1			
8.00						
3.00	∆ <mark>1</mark>		Q^f		3	
-2.00	Υ				T	
-7.00						
-12.0						
-17.0						
-22.0						
-27.0						TRIG LVL
-32.0						
-52.0						
Center 2.40200						Span 0 Hz
Res BW 3.0 MH	z	#VBW	30 kHz		Sweep	1.000 ms (8192 pts)
MKR MODE TRC SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNC	TION VALUE
1 N 1 t	108.1 µ	s <u>1.16 d</u>	Bm			
2 N 1 t 3 N 1 t	<u>488.8 μ</u> 734.1 μ	s 2.81 d s 1.47 d	Bm			
4 5						
6						11
7						
9						
10						
11			m			*
MSG				STATUS		
				1		
		BLE/GFSK 1	Mbps Low Chann	el, 2402 MHz		
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results

		BLE/GFSK 1	Mbps Low Chanr	nel, 2402 MHz		
			Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
	N/A	N/A	5	N/A	N/A	N/A

RL RF 50 Ω DC		ENSE:INT	ALIGN OFF		09:58:30 AM Apr 25, 202
	PNO: Fast +++ IFGain:Low	Trig: Video #Atten: 10 dB	#Avg Type	e: Voltage	TRACE 1 2 3 4 5 TYPE WWWW DET P P P P P
Ref Offset 21.19 dB dB/div Ref 13.00 dBm					
00					
00	····		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		
.0					
.0					
0					
0					TRIGL
.0					
enter 2.402000000 GHz es BW 3.0 MHz	#VBV	V 30 kHz		Sweep	Span 0 H 2.817 ms (8192 pt
			STATUS		



				BLE/GFSK 1	Mbps Mid Char	nel, 2442 MHz			
					Number of	Value	Limit		
		Pul	se Width	Period	Pulses	(%)	(%)	Results	
		380	0.207 us	626.199 us	1	60.7	N/A	N/A	
			t Materials Technol					- F	
LXI RL	RF	50 Ω [DC	SE	NSE:INT Trig Delay-100.0	ALIGN OFF	pe: Voltage	10:08:40 AM Apr 25, 20 TRACE 1 2 3 4	23
				PNO: Fast ↔↔ FGain:Low	Trig: Video #Atten: 10 dB	µs #Avg⊺yp	be: voltage	TYPE WWWW DET P P P P	AA/
5 dB/div	Ref C) ffset 21.19 13.00 dB	dB					Mkr3 734.2 µ 1.63 dBi	s n
Log	Rei	15.00 00							
8.00		1			^ 2		3		-
3.00	s	<u> </u>							
-2.00									-
-7.00									_
-12.0									_
-17.0									
-22.0									
-27.0								TRIG L	<u>/L</u>
-32.0									
		0000 GH	z	<i>4</i> 0 (5) (001-11-		•••••	Span 0 H	
Res BW		Z			30 kHz		-	1.000 ms (8192 pt	5)
MKR MODE	TRC SCL		Х 108.0 µs	Y 1.25 d	FUNCTION	FUNCTION WIDTH	FUNC	TION VALUE	<u>^</u>
2 N	1 t		488.2 µs	2.89 d	Bm				
3 N 4	<u>1 t</u>		734.2 µs	1.63 d	BM				
5									E
7									
8									
10									
					m			,	- I
MSG						STATUS			
				BLE/GFSK 1	Mbps Mid Char		Limit		
		Duit	se Width	Period	Number of Pulses	Value (%)	Limit (%)	Results	
		PUI		renou	Fuises		[70]	Results	

RL	trum Analyzer - Eleme RF 50 Ω	DC	Intology		ENSE:INT		ALIGN 0			10:08	:50 AM Apr 25, 202
NL I	N 2032	DC		1 3				vg Type:	Voltage		TRACE 1 2 3 4 5
			PNO: Fast IFGain:Lov		Trig: Video #Atten: 10	dB		ng type.	Vollage		TYPE WWWWW DET P P P P P
dB/div	Ref Offset 21.19 Ref 13.00 dE	9 dB Sm									
Ja alla alla alla alla alla alla alla a											
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2.0											
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2.0								{			
enter 2.4	42000000 GH	7						ļ			Span 0 H
es BW 3.	0 MHz			#VBV	V 30 kHz				Swee	ep 2.818 r	Span 0 H ns (8192 pt
G							s	TATUS			



		DEL/OF OR T	Mbps High Channe Number of	Value	Limit	
	Pulse Width	Period	Pulses	(%)	(%)	Results
1	381.584 us	627.542 us	ruises	60.8	(%) N/A	N/A
	381.584 US	627.542 US	1	60.8	IN/A	IN/A
	yzer - Element Materials Tech					
LXIRL RF	50 Ω DC	SE	Trig Delay-100.0 µs	ALIGN OFF #Avg Typ		10:15:33 AM Apr 25, 2023
		PNO: Fast	Trig: Video	#Avg Typ	e: voltage	TRACE 1 2 3 4 5 6 TYPE WWWWW DET P P P P P
		IFGain:Low	#Atten: 10 dB			DET PPPPF
	x					Mkr3 735.1 us
Ref Of 5 dB/div Ref 1	fset 21.19 dB 2.00 dBm					Mkr3 735.1 µs 0.95 dBm
Log						
7.00	4		^ 2		3	
2.00	1		Y			
-3.00					(
-8.00						
-13.0						
-18.0						
-23.0						
-28.0			<u> </u>			TRIG LVL
-33.0						
-33.0						
Center 2.480000	000 GHz					Span 0 Hz
Res BW 3.0 MHz	-	#VBW	/ 30 kHz		Sweep 1	.000 ms (8192 pts)
MKR MODE TRC SCL	x	Y	FUNCTION	FUNCTION WIDTH	FUNCT	ION VALUE
1 1						
2 1						
4						
5						E
7						
9						
10						
						-

	BLE/GFSK 1	Mbps High Chan	nel, 2480 MHz			
		Number of	Value	Limit		
Pulse Width	Period	Pulses	(%)	(%)	Results	_
N/A	N/A	5	N/A	N/A	N/A	

RL	RF	50 Ω DC			SENSE:INT		ALIGN	OFE		10:15:40	AM Apr 25, 202
	TM .		PNO: IFGair	Fast ↔	Trig: Vide #Atten: 10	o) dB		Avg Type:	Voltage	TF	ACE 1 2 3 4 5 TYPE WWWWW DET P P P P P
dB/div ⊃g √	Ref Offse Ref 12.0	et 21.19 dB 00 dBm	I			1					I
.00											
00											
00											
.0											
.0											
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.0											TRIG L
enter 2. es BW	.48000000 3.0 MHz	0 GHz		#VB	№ 30 kHz				Swee	ep 2.824 ms	Span 0 H 5 (8192 pt



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The EUT was set to the channels and modes listed in the datasheet.

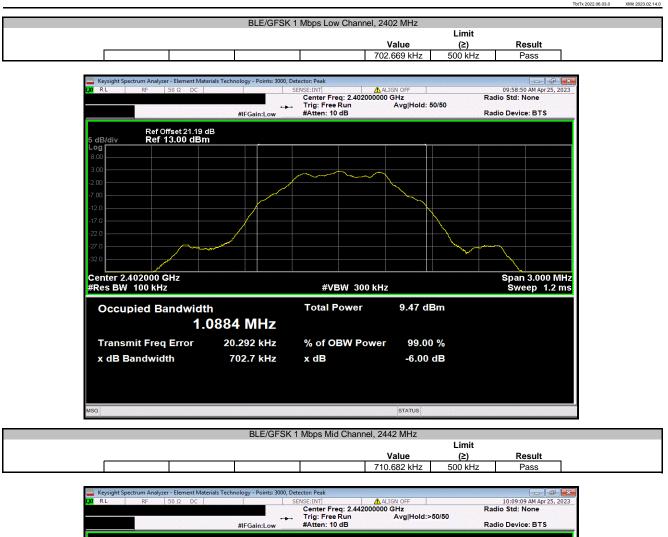
The 6dB DTS bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

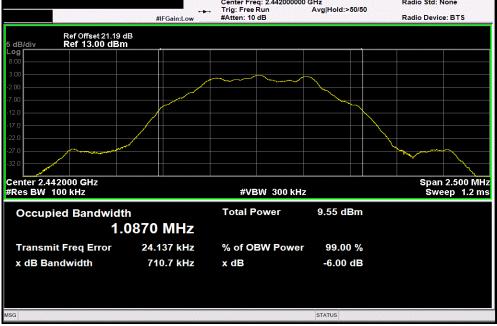


EUT: \	V700							Work Order:	WTVD0085	
Serial Number: E	BWL7-000968							Date:	04/25/2023	
Customer:	Motorola Solutions, Inc.							Temperature:	21.9°C	
Attendees:	tendees: Navaid Karimi Project: None							Humidity:	40%	
Project:	Project: None Tested by: Marty Martin Power: 4.2VDC via Battery							Barometric Pres.:		
				Pov	wer: 4.2VDC via Battery			Job Site:	TX07	
EST SPECIFICATIO	ONS				Test Method					
FCC 15.247:2023					ANSI C63.10:2013					
RSS-247 Issue 2:201	17				ANSI C63.10:2013					
COMMENTS All measurment path	h looses were accounted f	or in the reference level off	fset inluding	any attenua	ators, filters, and DC blo	cks.				
All measurment path		or in the reference level off	fset inluding	any attenua	ators, filters, and DC blo	cks.				
All measurment path		or in the reference level off	fset inluding	any attenua	ators, filters, and DC blo	cks.				
All measurment path DEVIATIONS FROM None		or in the reference level off			ators, filters, and DC blo Marta	cks.				
All measurment path DEVIATIONS FROM None	TEST STANDARD					cks.			Limit	
All measurment path DEVIATIONS FROM None	TEST STANDARD					cks.		Value	Limit (≥)	Result
All measurment path DEVIATIONS FROM None Configuration #	TEST STANDARD					cks.		Value 702.669 kHz		Result Pass
All measurment path DEVIATIONS FROM None Configuration # BLE/GFSK 1 Mbps Lc	TEST STANDARD					cks.			(≥)	

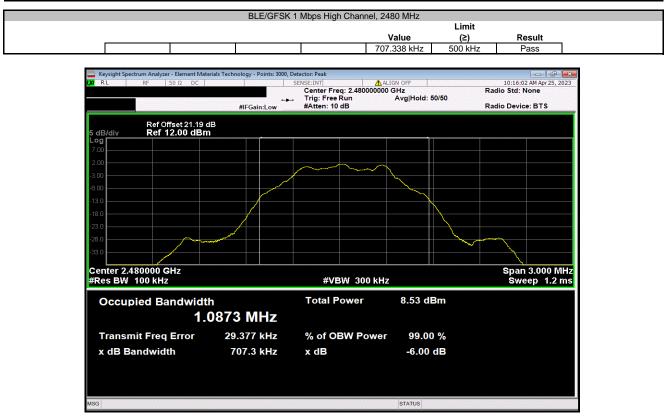
Report No. WTVD0085.6 Rev. 3











EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

Prior to measuring output power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding [10 log (1 / D)], where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Equivalent Isotropic Radiated Power (EIRP) = Max Measured Power + Antenna gain (dBi)

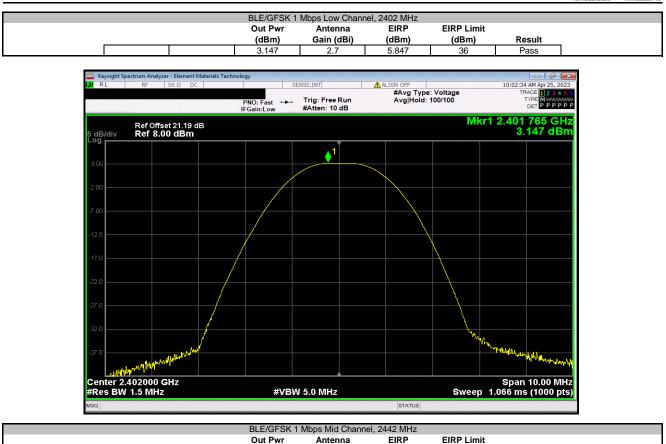
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



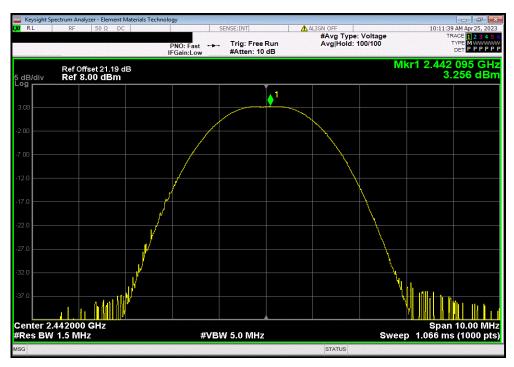
			TbtTx 2022.06.03.0	XMit 2023.02.14.0
EUT: V700		Work Order	: WTVD0085	
Serial Number: BWL7-000968		Date	: 04/25/2023	
Customer: Motorola Solutions, Inc.		Temperature	: 22.2°C	
Attendees: Navaid Karimi		Humidity	: 39.4%	
Project: None		Barometric Pres.	: 1016 mbar	
Tested by: Marty Martin	Power: 4.2VDC via Battery	Job Site	: TX07	
TEST SPECIFICATIONS	Test Method			
FCC 15.247:2023	ANSI C63.10:2013			
RSS-247 Issue 2:2017	ANSI C63.10:2013			
RSS-Gen Issue 5:2018+A1:2019+A2:2021	ANSI C63.10:2013			
COMMENTS				
All measurment path looses were accounted for in the reference level offset inludi DEVIATIONS FROM TEST STANDARD				
None				
	anty Marti			
	Out Pwr (dBm)	Antenna EIRP Gain (dBi) (dBm)	EIRP Limit (dBm)	Result
BLE/GFSK 1 Mbps Low Channel, 2402 MHz	3.147	2.7 5.847	36	Pass
BLE/GFSK 1 Mbps Mid Channel, 2442 MHz	3.256	2.7 5.956	36	Pass
BLE/GFSK 1 Mbps High Channel, 2480 MHz	2.522	2.7 5.222		

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



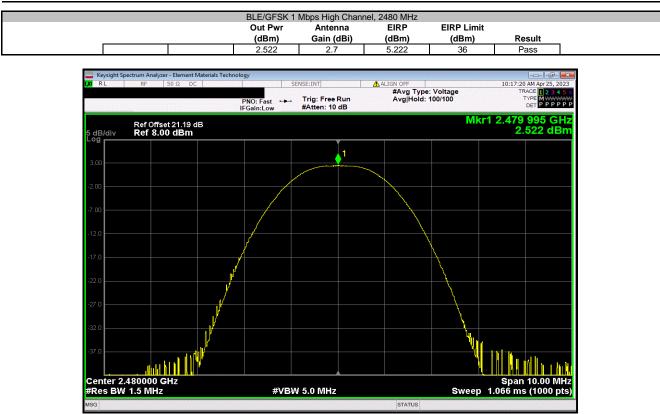


	Out Pwr	Antenna	EIRP	EIRP Limit	
	(dBm)	Gain (dBi)	(dBm)	(dBm)	Result
	3.256	2.7	5.956	36	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)







Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The 99% occupied bandwidth was measured with the EUT configured for continuous modulated operation.

Per ANSI C63.10:2013, 6.9.3, the spectrum analyzer was configured as follows:

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

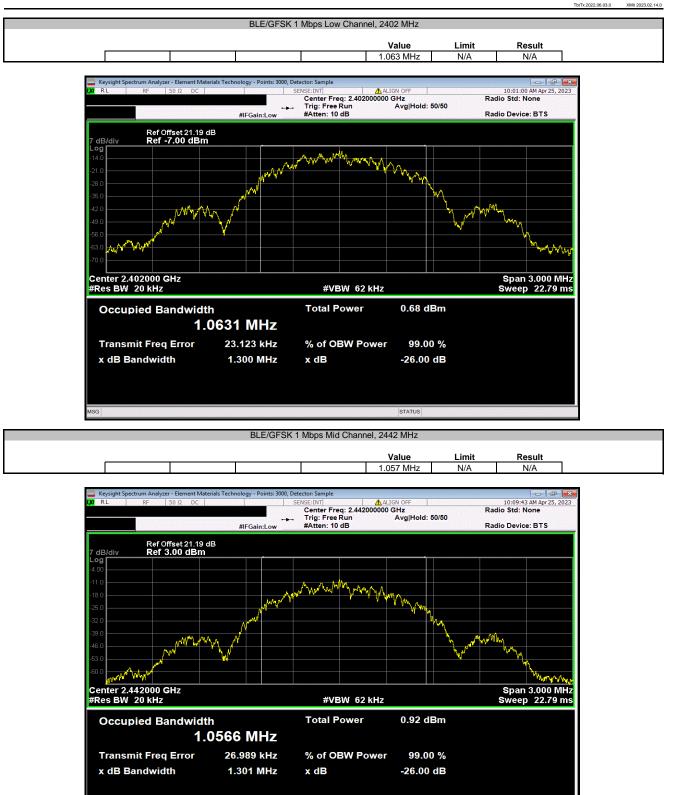
The resolution bandwidth (RBW) of the spectrum analyzer was set to the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) bandwidth was set to at least 3 times the resolution bandwidth. The analyzer sweep time was set to auto to prevent video filtering or averaging. A sample detector was used unless the device was not able to be operated in a continuous transmit mode, in which case a peak detector was used.

The spectrum analyzer occupied bandwidth measurement function was used to sum the power of the transmission in linear terms to obtain the 99% bandwidth.



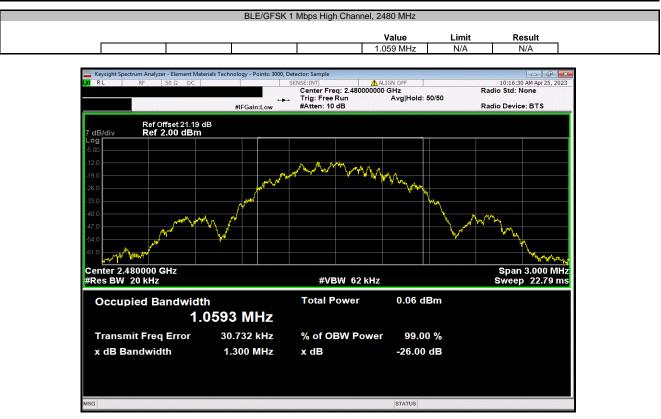
						TbtTx 2022.06.03.0	XMit 2023.02.14
EUT: V700					Work Order		
Serial Number: BWL7-000	0968				Date	04/25/2023	
Customer: Motorola	Solutions, Inc.				Temperature		
Attendees: Navaid Ka	arimi				Humidity	39.5%	
Project: None					Barometric Pres.	1016 mbar	
Tested by: Marty Mar	rtin		Power	: 4.2VDC via Battery	Job Site	TX07	
TEST SPECIFICATIONS				Test Method			
FCC 15.247:2023				ANSI C63.10:2013			
RSS-Gen Issue 5:2018+A1:20	19+A2:2021			ANSI C63.10:2013			
COMMENTS							
DEVIATIONS FROM TEST ST	ANDARD						
None							
Configuration # WT	VD0085-1 Sigr	nature	torty	Marti			
					Value	Limit	Result
BLE/GFSK 1 Mbps Low Chann	el, 2402 MHz				1.063 MHz	N/A	N/A
BLE/GFSK 1 Mbps Mid Channe	el, 2442 MHz				1.057 MHz	N/A	N/A
BLE/GFSK 1 Mbps High Chann	nel, 2480 MHz				1.059 MHz	N/A	N/A





STATUS





OUTPUT POWER



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum.

Prior to measuring peak transmit power the DTS bandwidth (B) was measured.

The method found in ANSI C63.10:2013 Section 11.9.1.1 was used because the RBW on the analyzer was greater than the DTS Bandwidth of the radio.

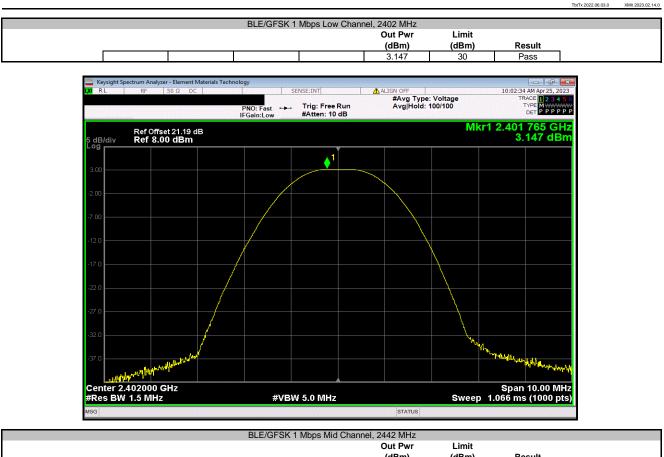
OUTPUT POWER

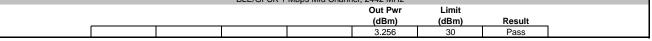


EUT:	V700					Work Order:	WTVD0085	
Serial Number:	BWL7-000968					Date:	04/25/2023	
Customer:	Motorola Solutions, Inc.					Temperature:		
	Navaid Karimi					Humidity:		
Project:					В	arometric Pres.:		
	Marty Martin			Power: 4.2VDC via Battery		Job Site:	TX07	
TEST SPECIFICATIO	ONS			Test Method				
FCC 15.247:2023				ANSI C63.10:2013				
RSS-247 Issue 2:201	17			ANSI C63.10:2013				
RSS-Gen Issue 5:20	040.44.0040.40.0004			ANIOL 000 40-0040				
K33-Gen issue 5.20	U16+A1:2019+A2:2021			ANSI C63.10:2013				
COMMENTS	th looses were accounted for in the	e reference level offse	et inluding any atte					
COMMENTS	th looses were accounted for in the	e reference level offse	et inluding any atte					
COMMENTS All measurment pat	th looses were accounted for in the	e reference level offse	et inluding any atte					
COMMENTS All measurment pat	th looses were accounted for in the	e reference level offse						
COMMENTS All measurment pati DEVIATIONS FROM None	th looses were accounted for in the			nuators, filters, and DC blocks.		Out Pwr (dBm)	Limit (dBm)	Result
COMMENTS All measurment pati DEVIATIONS FROM None Configuration #	th looses were accounted for in the			nuators, filters, and DC blocks.				Result Pass
COMMENTS All measurment pati DEVIATIONS FROM None Configuration # BLE/GFSK 1 Mbps Lu	th looses were accounted for in the I TEST STANDARD WTVD0085-1			nuators, filters, and DC blocks.		(dBm)	(dBm)	

OUTPUT POWER



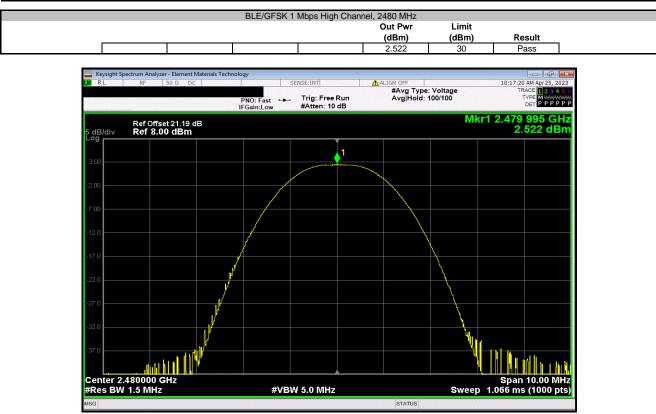






OUTPUT POWER





BAND EDGE COMPLIANCE



Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

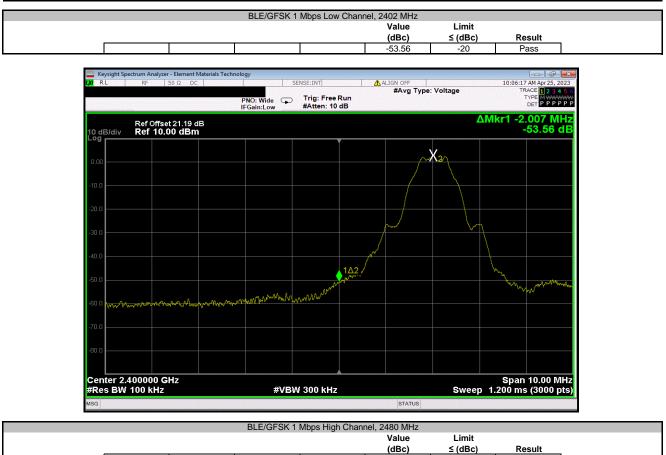
BAND EDGE COMPLIANCE

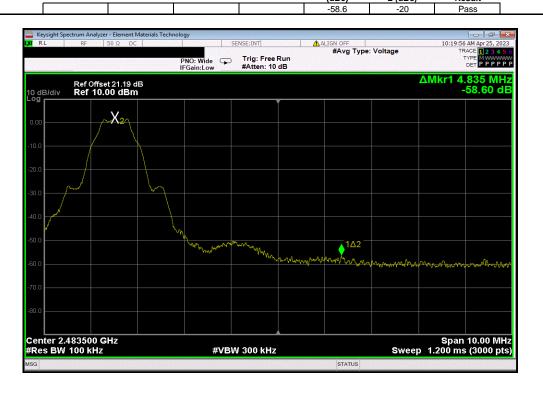


						TbtTx 2022.06.03.0	XMit 2023.02.14.0
EUT:	V700				Work Order:	WTVD0085	
Serial Number:	BWL7-000968				Date:	04/25/2023	
Customer:	Motorola Solutions, Inc.				Temperatures	21.3°C	
Attendees:	Navaid Karimi				Humidity:	41.1%	
Project:	None				Barometric Pres.:	1016 mbar	
Tested by:	Marty Martin		Power	4.2VDC via Battery	Job Site:	TX07	
TEST SPECIFICATI	ONS			Test Method			
FCC 15.247:2023				ANSI C63.10:2013			
RSS-247 Issue 2:20	17			ANSI C63.10:2013			
COMMENTS				-			
All measurment pa	th looses were accounted for	in the reference level offset inludi	ng any attenuator	s, filters, and DC blocks.			
DEVIATIONS FROM	I TEST STANDARD						
None							
Configuration #	WTVD0085-1	Signature	arty	Marti			
					Value	Limit	
					(dBc)	≤ (dBc)	Result
BLE/GFSK 1 Mbps L	ow Channel, 2402 MHz				-53.56	-20	Pass
BLE/GFSK 1 Mbps H	ligh Channel, 2480 MHz				-58.6	-20	Pass

BAND EDGE COMPLIANCE









Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

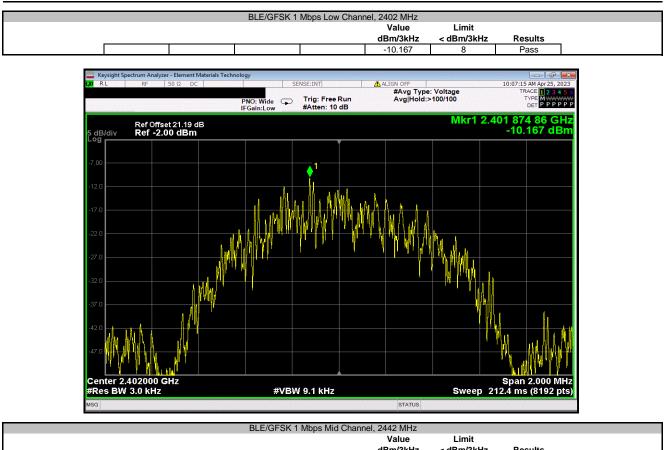
The maximum power spectral density measurements was measured using the channels and modes as called out on the following data sheets.

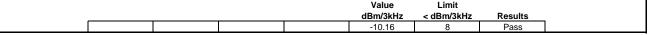
Per the procedure outlined in ANSI C63.10 the peak power spectral density was measured in a 3 kHz RBW.



				TbtTx 2022.06.03.0	XMit 2023.02.14.0
EUT: V700			Work Order:	WTVD0085	
Serial Number: BWL7-000968			Date:	04/25/2023	
Customer: Motorola Solutions	, Inc.		Temperature:	22.5°C	
Attendees: Navaid Karimi			Humidity:	38.9%	
Project: None			Barometric Pres.:	1016 mbar	
Tested by: Marty Martin		Power: 4.2VDC via Battery	Job Site:	TX07	
TEST SPECIFICATIONS		Test Method			
FCC 15.247:2023		ANSI C63.10:2013			
RSS-247 Issue 2:2017		ANSI C63.10:2013			
COMMENTS					
DEVIATIONS FROM TEST STANDARD					
None					
Configuration # WTVD0085-1	Signature	arty Marti			
			Value dBm/3kHz	Limit < dBm/3kHz	Results
BLE/GFSK 1 Mbps Low Channel, 2402 M	Hz		-10.167	8	Pass
BLE/GFSK 1 Mbps Mid Channel, 2442 MI	Hz		-10.16	8	Pass
BLE/GFSK 1 Mbps High Channel, 2480 M			-10.846		

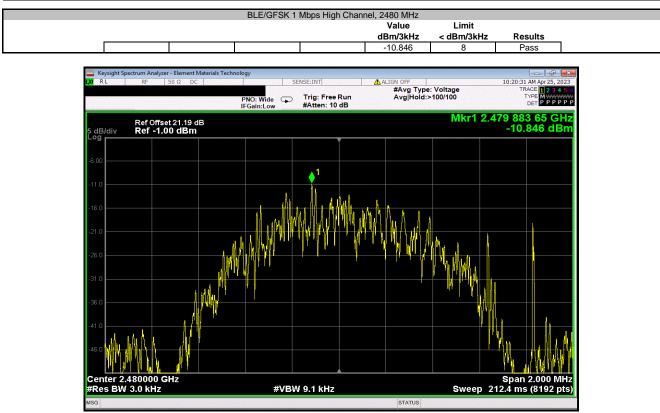














Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA4018-20	TYE	2022-09-13	2023-09-13
Block - DC	Fairview Microwave	SD3239	ANE	2023-02-16	2024-02-16
Cable	Micro-Coax	UFD150A-1-0720-200200	TXG	2022-12-08	2023-12-08
Generator - Signal	Agilent	N5173B	TIW	2020-07-17	2023-07-17
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	2023-03-17	2024-03-17

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The spurious RF conducted emissions were measured with the EUT set to low, medium and high transmit frequencies. The EUT was transmitting at the data rate(s) listed in the datasheet. For each transmit frequency, the fundamental was measured with a 100 kHz resolution bandwidth and the highest value was recorded. The rest of the spectrum was then measured with a 100 kHz resolution bandwidth and the highest value was found. The difference between the value found on the fundamental and the rest of the spectrum was compared against the limit to determine compliance.

The reference level offset for the fundamental screen capture was based on a measured value of the loss between the spectrum analyzer and the EUT which was verified at the time of test. The remaining screen capture(s) use an internal transducer factor on the analyzer to correct the displayed trace based on the cable loss over frequency. The reference level offset for the additional screen capture(s) is then based on the expected attenuator value and any other losses.

Fundamental Offset = Ref Lvl Offset showing measured composite factor of all losses

Remaining Screen capture(s) Offset = "Internal" cable loss factor not shown on screen capture + Ref LvI Offset showing expected attenuator value and any other losses



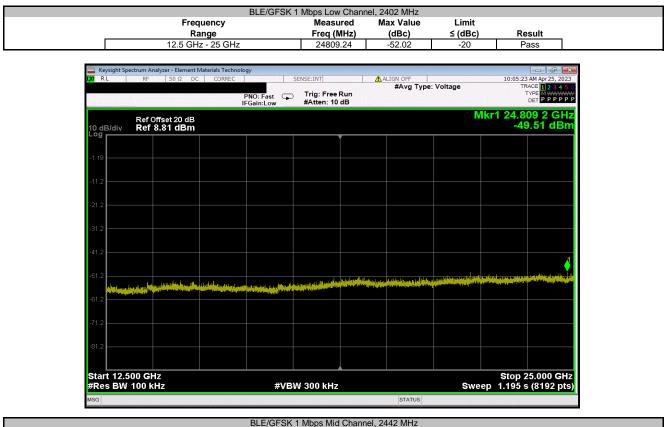
EUT:	V700					Work Order:	WTVD0085		
Serial Number:							04/25/2023		
	Motorola Solutions. Inc.					Temperature:			
	Navaid Karimi					Humidity:			
Project:					Barometric Pres.: 1016 mbar				
Tested by:	Marty Martin		Po	wer: 4.2VDC via Battery		Job Site:	TX07		
TEST SPECIFICATIO	ONS			Test Method					
FCC 15.247:2023				ANSI C63.10:2013					
RSS-247 Issue 2:201	17			ANSI C63.10:2013					
COMMENTS									
	TEST STANDARD								
None	TEST STANDARD	Signature	Monty	Marti					
None		Signature	Monty	Marti Frequency Range	Measured Freq (MHz)	Max Value (dBc)	Limit ≤ (dBc)	Result	
None Configuration #		Signature	Mosty	Frequency				Result N/A	
None Configuration # BLE/GFSK 1 Mbps Lo	WTVD0085-1	Signature	Monty	Frequency Range	Freq (MHz)	(dBc)	≤ (dBc)		
None Configuration # BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps Lo	WTVD0085-1	Signature	Morty.	Frequency Range Fundamental	Freq (MHz) 2402	(dBc) N/A	≤ (dBc) N/A	N/A	
None Configuration # BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M	WTVD0085-1 ow Channel, 2402 MHz ow Channel, 2402 MHz did Channel, 2402 MHz did Channel, 2442 MHz	Signature	Mosty	Frequency Range Fundamental 30 MHz - 12.5 GHz	Freq (MHz) 2402 3793.38	(dBc) N/A -55.46	<mark>≤ (dBc)</mark> N/A -20	N/A Pass	
None Configuration # BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M	WTVD0085-1 ow Channel, 2402 MHz ow Channel, 2402 MHz ow Channel, 2402 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz	Signature	Metty	Frequency Range Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz	Freq (MHz) 2402 3793.38 24809.24 2442 3886.25	(dBc) N/A -55.46 -52.02 N/A -55.71	≤ (dBc) N/A -20 -20 N/A -20	N/A Pass Pass N/A Pass	
None Configuration # BLE/GFSK 1 Mbps Lc BLE/GFSK 1 Mbps Lc BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M	WTVD0085-1 ow Channel, 2402 MHz ow Channel, 2402 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz	Signature	Metoty.	Frequency Range Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	Freq (MHz) 2402 3793.38 24809.24 2442 3886.25 24558.97	(dBc) N/A -55.46 -52.02 N/A -55.71 -52.66	≤ (dBc) N/A -20 -20 N/A -20 -20	N/A Pass Pass N/A Pass Pass	
None Configuration # BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps Lo BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M	WTVD0085-1 ow Channel, 2402 MHz ow Channel, 2402 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz lig Channel, 2480 MHz	Signature	Mosty	Frequency Range Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental	Freq (MHz) 2402 3793.38 24809.24 2442 3886.25 24558.97 2480.01	(dBc) N/A -55.46 -52.02 N/A -55.71 -52.66 N/A	≤ (dBc) N/A -20 -20 N/A -20 -20 N/A	N/A Pass Pass N/A Pass Pass N/A	
BLE/GFSK 1 Mbps Lc BLE/GFSK 1 Mbps Lc BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps M BLE/GFSK 1 Mbps H BLE/GFSK 1 Mbps H	WTVD0085-1 ow Channel, 2402 MHz ow Channel, 2402 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz lid Channel, 2442 MHz	Signature	Merry	Frequency Range Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz Fundamental 30 MHz - 12.5 GHz 12.5 GHz - 25 GHz	Freq (MHz) 2402 3793.38 24809.24 2442 3886.25 24558.97	(dBc) N/A -55.46 -52.02 N/A -55.71 -52.66	≤ (dBc) N/A -20 -20 N/A -20 -20	N/A Pass Pass N/A Pass Pass	



	BLE/0	GFSK 1 Mbps Low Chanr	nel. 2402 MHz		
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	Fundamental	2402	N/A	N/A	N/A
	Analyzer - Element Materials Technology				
LXIRL R	F 50 Ω DC	SENSE:INT	ALIGN OFF #Avg Type:	Voltage	10:03:17 AM Apr 25, 2023
	PNO: Wid IFGain:Lo		#111g 13pc.	Tonuge	TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P
Ba	f Offset 21.19 dB			Mkr1 2.4	01 999 94 GHz
10 dB/div Re	f 10.00 dBm				2.510 dBm
Log		1			
0.00					
-10.0					
-20.0					
-30.0					
-38.8					
-40.0					
-50.0					
-60.0					
70.0					
-70.0					
-80.0					
Center 2.4020					Spop 4 000 Mile
#Res BW 100		#VBW 300 kHz		Sweep 1.	Span 1.000 MHz 092 ms (8192 pts)
MSG			STATUS		
		GFSK 1 Mbps Low Chanr Measured	nel, 2402 MHz Max Value	Limit	
	Frequency Range	Freq (MHz)	(dBc)	∠imit ≤ (dBc)	Result
	30 MHz - 12.5 GHz	3793.38	-55.46	-20	Pass

RL	ctrum Analyzer - Element RF 50 Ω D			SE	ENSE:INT		ALIGN OFF		10:04:2	5 AM Apr 25, 202
	_		PNO: Fast FGain:Low		Trig: Free F #Atten: 10	Run	#Avg Type	: Voltage	т	TYPE MWWW DET PPPP
dB/div	Ref Offset 20 dB Ref 8.81 dBm								Mkr1 3.7 -5	93 4 GF 2.95 dB
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art 30 M Ves BW	IHz 100 kHz		#\	/BW	/ 300 kHz			Swe	Stop *	12.500 GH
							STATUS	- Owie		e to rec h

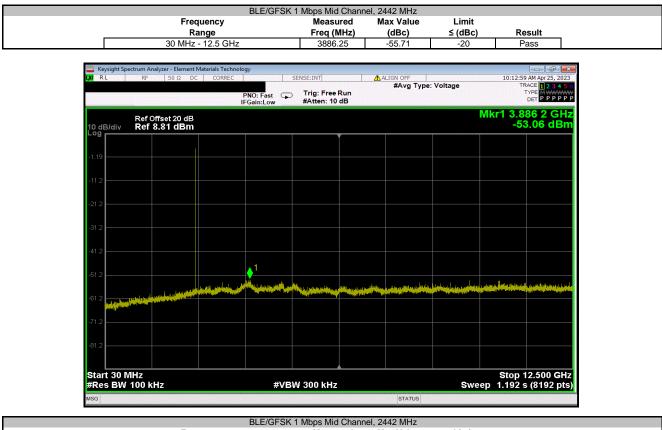




	BLE/GFSK 1 Mb	bps Mid Chann	el, 2442 MHz			
Frequency		Measured	Max Value	Limit		
Range		Freq (MHz)	(dBc)	≤ (dBc)	Result	
Fundamental		2442	N/A	N/A	N/A	r -

Keysight Spectrum Analyzer - Element Materials RL RF 50 Ω DC	SENSE:INT	ALIGN OFF	10:12:00 AM Apr 25, 202
	PNO: Wide Trig: Fr IFGain:Low #Atten:	#Avg Type: Vo	
Ref Offset 21.19 dB dB/div Ref 10.00 dBm			Mkr1 2.442 002 14 GH 2.65 dBr
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enter 2.4420000 GHz Res BW 100 kHz	#VBW 300 k	Hz	Span 1.000 Mł Sweep 1.092 ms (8192 pł
3		STATUS	





BLE/GFSK 1									
Frequency	Frequency Measured Max Value Limit								
Range	Freq (MHz)	(dBc)	≤ (dBc)	Result					
12.5 GHz - 25 GHz	24558.97	-52.66	-20	Pass					

RL		RF	50 Ω	DC	erials Techno CORREC	5,	S	ENSE:INT		ALIGN OFF		10.1	.3:57 AM Apr 25, 20
			10030			PNO: Fast IFGain:Low		Trig: Free F #Atten: 10 c	tun	#Avg Type	: Voltage		TRACE 1 2 3 4 TYPE M WWW DET P P P P
) dB.	/div	Ref Of Ref 8	fset 20 (.81 dB	dB m								Mkr1 24	.559 0 GH -50.01 dB
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1.2 -													
	12.50 BW 1			1		\$	¢VΒν	V 300 kHz			s	Sto weep 1.19	p 25.000 GH 5 s (8192 pt
Apren American										STATUS			



	BLE/G	FSK 1 Mbps High Chanr	nel, 2480 MHz		
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	≤ (dBc)	Result
	Fundamental	2480.01	N/A	N/A	N/A
Keysight Spectrum	n Analyzer - Element Materials Technology				
	RF 50 Ω DC	SENSE:INT	ALIGN OFF		10:17:42 AM Apr 25, 2023
	PNO: Wid IFGain:Lo	e 🕞 Trig: Free Run w #Atten: 10 dB	#Avg Type		TRACE 1 2 3 4 5 6 TYPE M WWWWW DET P P P P P P
10 dB/div Re	ef Offset 21.19 dB ef 10.00 dBm			Mkr1 2.4	80 011 90 GHz 1.86 dBm
Log		↓ 1			
0.00					~
-10.0					
-20.0					
20.0					
-30.0					
-40.0					
-50.0					
-60.0					
-70.0					
-80.0					
Center 2.480 #Res BW 100		#VBW 300 kHz		Sweep 1	Span 1.000 MHz .092 ms (8192 pts)
MSG			STATUS		
		FSK 1 Mbps High Chanr			
	Frequency	Measured	Max Value	Limit	
	Range	Freq (MHz)	(dBc)	<u>≤ (dBc)</u>	Result
	30 MHz - 12.5 GHz	4731.18	-54.49	-20	Pass

RL	RF 50 Ω DC	P	NO: Fast Gain:Low	SENSE:INT Trig: Free #Atten: 10	Run	ALIGN OFF #Avg Type	: Voltage		B9 AM Apr 25, 202 RACE 1 2 3 4 5 TYPE M WWW DET P P P P P
0 dB/div	Ref Offset 20 dB Ref 8.81 dBm		Guilleow					Mkr1 4.7 -5	/31 2 GH 2.63 dBr
1.19									
11.2									
21.2									
31.2									
11.2									
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71.2									
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tart 30 M Res BW	/IHz 100 kHz		#VB	W 300 kHz			Sw	Stop eep 1.192	12.500 GH s (8192 pt
6G						STATUS			



	Frequency		1 Mbps High Chan Measured	Max Value	Limit	
	Range		Freq (MHz)	(dBc)	≤ (dBc)	Result
	12.5 GHz - 25 (211-	24243.07	-51.89	<u>≤ (uBC)</u> -20	Pass
	12.3 GHz - 23 C		24243.07	-01.09	-20	F d S S
	nalyzer - Element Materials Te			• · · · • • • •		10:19:37 AM Apr 25, 20
KARL RF	50 Ω DC COR	REC :	SENSE:INT	ALIGN OFF #Avg Type	: Voltage	TRACE 1 2 3 4
		PNO: Fast 😱	Trig: Free Run		-	TRACE 1 2 3 4 TYPE M WWW DET P P P P
		IFGain:Low	#Atten: 10 dB			
Ref	Offset 20 dB				Mki	1 24.243 1 G
10 dB/div Ref	8.81 dBm					-50.03 dB
-1.19						
-11.2						
-11.2						
-21.2						
-21.2						
24.2						
-31.2						
-41.2						
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01.2						
-71.2						
-81.2						
0.01.22						
Start 12.500 GI						Stop 25.000 G
#Res BW 100 k	Hz	#VB	A/ 300 kHz		Sweep	1.195 s (8192 p



TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, a final radiated emissions test was performed. The frequency range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level was detected. This required the use of a turntable and an antenna positioner. The preferred method of a continuous azimuth search was utilized for frequency scans of the EUT field strength with both polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the periphery of the EUT. Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance was 3 meters or 10 meters (from antenna to boundary of EUT). At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna was increased so that the lowest point of the bottom of the antenna cleared the ground surface by at least 25 cm.

The EUT arrangement is configured as equivalent to that occurring in normal use. Tabletop equipment is placed on a 0.8 meter high non-conductive table & for Floor-standing equipment; it is placed on, but insulated from a ground reference plane by the use of its own rollers or stand-off supports. If measurements above 1 GHz were required, the test setup was modified to meet the regulatory requirements for higher frequency measurements. If required, RF absorber was placed on the floor between the measurement antenna and EUT. If required, per the standard, an insulating material was also added to ground plane between the EUT's power and remote I/O cables.

The diameter of the illumination area is the dimension of the line tangent to the EUT formed by 3 dB beamwidth of the measurement antenna at the measurement distance. At a 3 meter test distance, the diameter of the illumination area was 3.8 meters at 1 GHz and greater than 2.1 meters up to 6 GHz. Above 1 GHz, when required by the measurement standard, the antenna is pointed for both azimuth and elevation to maintain the receive antenna within the cone of radiation from the EUT. The specified measurement detectors were used for comparison of the emissions to the peak and average specification limits.

The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Antenna - Standard Gain	ETS Lindgren	3160-08	AJG	NCR	NCR
Antenna - Standard Gain	ETS Lindgren	3160-07	AJF	NCR	NCR
Antenna - Double Ridge	ETS Lindgren	3115	AJL	2022-10-21	2024-10-21
Attenuator	Weinschel Corp	4H-20	AWB	2023-02-13	2024-02-13
Antenna - Biconilog	ETS Lindgren	3143B	AYF	2022-09-02	2024-09-02
Filter - High Pass	Micro-Tronics	HPM50111	HGC	2022-02-23	2023-02-23
Filter - High Pass	Micro-Tronics	HPM50108	HGD	2022-09-09	2023-09-09
Filter - Low Pass	Micro-Tronics	LPM50004	HHV	2022-07-22	2023-07-22
Amplifier - Pre-Amplifier	Miteq	JSDWK42-18004000-60-5P	PAM	2022-09-14	2023-09-14
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	PAL	2022-09-09	2023-09-09
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	PAK	2022-09-09	2023-09-09
Amplifier - Pre-Amplifier	Fairview Microwave	FMAM63001	PAS	2022-04-19	2023-04-19
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	PAJ	2022-04-19	2023-04-19
Cable	Northwest EMC	18-40GHz	TXE	2022-09-09	2023-09-09
Cable	Northwest EMC	8-18GHz	TXD	2022-04-12	2023-04-12
Cable	Northwest EMC	1-8.2 GHz	TXC	2022-04-19	2023-04-19
Cable	Northwest EMC	RE 9kHz - 1GHz	TXB	2022-06-10	2023-06-10
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFN	2022-01-19	2023-01-19

MEASUREMENT UNCERTAINTY

Description		
Expanded k=2	5.1 dB	-5.1 dB



FREQUENCY RANGE INVESTIGATED

30 MHz TO 40000 MHz

POWER INVESTIGATED

Battery

CONFIGURATIONS INVESTIGATED

WTVD0086-1

MODES INVESTIGATED

Transmitting at Low Channel (2402 MHz), Mid Channel (2442 MHz) and High Channel (2480 Mhz).



EUT:	V700	Work Order:	WTVD0086
Serial Number:	BWL7-000539	Date:	2022-12-22
Customer:	Motorola Solutions Inc.	Temperature:	20.5°C
Attendees:	Navaid Karimi	Relative Humidity:	17.8%
Customer Project:	None	Bar. Pressure (PMSL):	1031 mb
Tested By:	Marty Martin	Job Site:	TX02
Power:	Battery	Configuration:	WTVD0086-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2022	ANSI C63.10:2013
RSS-247 Issue 2:2017	ANSI C63.10:2013
RSS-Gen Issue 5:2018+A1:2019+A2:2021	ANSI C63.10:2013

TEST PARAMETERS

	Run #:	47	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)
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COMMENTS

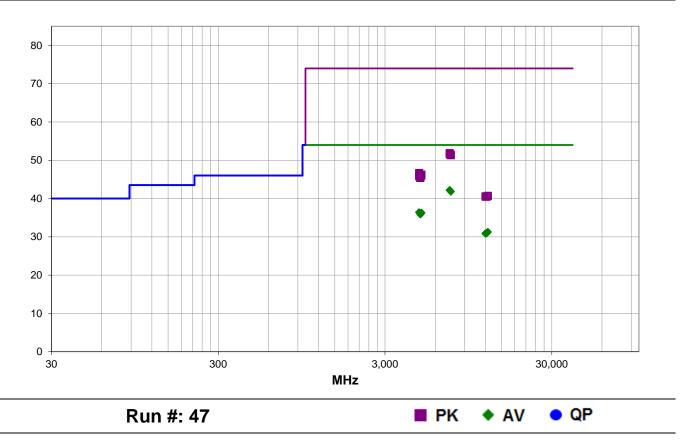
EUT fully operational and Transmitting, see table for details.

EUT OPERATING MODES

Transmitting at Low Channel (2402 MHz), Mid Channel (2442 MHz) and High Channel (2480 Mhz).

DEVIATIONS FROM TEST STANDARD

None





RESULTS - Run #47

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity/ Transducer Tvne	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
7326.175	29.0	11.3	1.5	230.0	1.9	0.0	Horz	AV	0.0	42.2	54.0	-11.8	Mid Ch, EUT Vert, BLE
7325.502	29.0	11.3	1.5	265.0	1.9	0.0	Vert	AV	0.0	42.2	54.0	-11.8	Mid Ch, EUT Vert, BLE
7439.713	28.5	11.4	2.8	261.0	1.9	0.0	Horz	AV	0.0	41.8	54.0	-12.2	High Ch, EUT Vert, BLE
7439.670	28.5	11.4	1.5	307.0	1.9	0.0	Vert	AV	0.0	41.8	54.0	-12.2	High Ch, EUT Vert, BLE
4803.517	29.4	5.1	1.5	49.0	1.9	0.0	Horz	AV	0.0	36.4	54.0	-17.6	Low Ch, EUT Vert, BLE
4803.762	29.4	5.1	1.5	213.0	1.9	0.0	Vert	AV	0.0	36.4	54.0	-17.6	Low Ch, EUT Vert, BLE
4959.940	29.5	4.9	1.5	261.9	1.9	0.0	Vert	AV	0.0	36.3	54.0	-17.7	High Ch, EUT Vert, BLE
4960.075	29.4	4.9	2.5	31.0	1.9	0.0	Horz	AV	0.0	36.2	54.0	-17.8	High Ch, EUT Vert, BLE
4883.610	29.1	5.0	1.5	262.9	1.9	0.0	Vert	AV	0.0	36.0	54.0	-18.0	Mid Ch, EUT Vert, BLE
4883.533	28.9	5.0	1.5	192.0	1.9	0.0	Horz	AV	0.0	35.8	54.0	-18.2	Mid Ch, EUT Vert, BLE
7325.533	40.6	11.3	1.5	265.0	0.0	0.0	Vert	PK	0.0	51.9	74.0	-22.1	Mid Ch, EUT Vert, BLE
7439.668	40.1	11.4	1.5	307.0	0.0	0.0	Vert	PK	0.0	51.5	74.0	-22.5	High Ch, EUT Vert, BLE
7326.415	40.2	11.3	1.5	230.0	0.0	0.0	Horz	PK	0.0	51.5	74.0	-22.5	Mid Ch, EUT Vert, BLE
12399.830	32.1	-2.7	1.5	264.0	1.9	0.0	Horz	AV	0.0	31.3	54.0	-22.7	High Ch, EUT Vert, BLE
7439.727	39.9	11.4	2.8	261.0	0.0	0.0	Horz	PK	0.0	51.3	74.0	-22.7	High Ch, EUT Vert, BLE
12399.760	32.0	-2.7	1.5	254.0	1.9	0.0	Vert	AV	0.0	31.2	54.0	-22.8	High Ch, EUT Vert, BLE
12210.100	32.4	-3.3	1.5	116.0	1.9	0.0	Vert	AV	0.0	31.0	54.0	-23.0	Mid Ch, EUT Vert, BLE
12010.090	33.4	-4.4	1.5	255.0	1.9	0.0	Horz	AV	0.0	30.9	54.0	-23.1	Low Ch, EUT Vert, BLE
12209.840	32.3	-3.3	1.5	142.9	1.9	0.0	Horz	AV	0.0	30.9	54.0	-23.1	Mid Ch, EUT Vert, BLE
12010.480	33.3	-4.4	1.5	301.0	1.9	0.0	Vert	AV	0.0	30.8	54.0	-23.2	Low Ch, EUT Vert, BLE
4803.777	41.6	5.1	1.5	213.0	0.0	0.0	Vert	PK	0.0	46.7	74.0	-27.3	Low Ch, EUT Vert, BLE
4959.870	41.4	4.9	2.5	31.0	0.0	0.0	Horz	PK	0.0	46.3	74.0	-27.7	High Ch, EUT Vert, BLE
4959.885	41.1	4.9	1.5	261.9	0.0	0.0	Vert	PK	0.0	46.0	74.0	-28.0	High Ch, EUT Vert, BLE
4804.045	40.7	5.1	1.5	49.0	0.0	0.0	Horz	PK	0.0	45.8	74.0	-28.2	Low Ch, EUT Vert, BLE
4884.062	40.4	5.0	1.5	192.0	0.0	0.0	Horz	PK	0.0	45.4	74.0	-28.6	Mid Ch, EUT Vert, BLE
4883.890	40.4	5.0	1.5	262.9	0.0	0.0	Vert	PK	0.0	45.4	74.0	-28.6	Mid Ch, EUT Vert, BLE
12399.840	43.4	-2.7	1.5	264.0	0.0	0.0	Horz	PK	0.0	40.7	74.0	-33.3	High Ch, EUT Vert, BLE
12399.930	43.4	-2.7	1.5	254.0	0.0	0.0	Vert	PK	0.0	40.7	74.0	-33.3	High Ch, EUT Vert, BLE
12009.540	45.0	-4.4	1.5	255.0	0.0	0.0	Horz	PK	0.0	40.6	74.0	-33.4	Low Ch, EUT Vert, BLE
12009.550	44.9	-4.4	1.5	301.0	0.0	0.0	Vert	PK	0.0	40.5	74.0	-33.5	Low Ch, EUT Vert, BLE
12209.830	43.8	-3.3	1.5	142.9	0.0	0.0	Horz	PK	0.0	40.5	74.0	-33.5	Mid Ch, EUT Vert, BLE
12210.170	43.8	-3.3	1.5	116.0	0.0	0.0	Vert	PK	0.0	40.5	74.0	-33.5	Mid Ch, EUT Vert, BLE

CONCLUSION Pass

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Tested By



EUT:	V700	Work Order:	WTVD0086
Serial Number:	BWL7-000539	Date:	2022-12-22
Customer:	Motorola Solutions Inc.	Temperature:	20.5°C
Attendees:	Navaid Karimi	Relative Humidity:	17.8%
Customer Project:	None	Bar. Pressure (PMSL):	1031 mb
Tested By:	Marty Martin	Job Site:	TX02
Power:	Battery	Configuration:	WTVD0086-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2022	ANSI C63.10:2013
RSS-247 Issue 2:2017	ANSI C63.10:2013
RSS-Gen Issue 5:2018+A1:2019+A2:2021	ANSI C63.10:2013

TEST PARAMETERS

Run #:	49	Test Distance (m):	3	Ant. Height(s) (m):	1 to 4(m)

COMMENTS

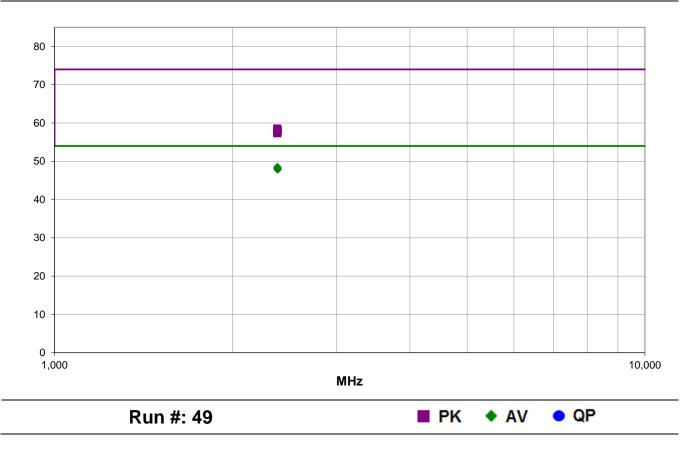
EUT fully operational and Transmitting, see table for BLE Band edge details.

EUT OPERATING MODES

Transmitting at Low Channel (2402 MHz), Mid Channel (2442 MHz) and High Channel (2480 Mhz).

DEVIATIONS FROM TEST STANDARD

None





RESULTS - Run #49

Freq (MHz)	Amplitude (dBuV)	Factor (dB/m)	Antenna Height (meters)	Azimuth (degrees)	Duty Cycle Correction Factor	External Attenuation (dB)	Polarity/ Transducer Tvne	Detector	Distance Adjustment (dB)	Adjusted (dBuV/m)	Spec. Limit (dBuV/m)	Compared to Spec. (dB)	Comments
2385.357	33.0	-6.4	1.5	94.9	1.9	20.0	Horz	AV	0.0	48.5	54.0	-5.5	High Ch, EUT Vert, BLE
2385.140	32.8	-6.4	1.5	243.0	1.9	20.0	Vert	AV	0.0	48.3	54.0	-5.7	High Ch, EUT Vert, BLE
2384.793	32.5	-6.4	1.5	122.0	1.9	20.0	Horz	AV	0.0	48.0	54.0	-6.0	High Ch, EUT Horz, BLE
2384.713	32.5	-6.4	1.5	222.0	1.9	20.0	Vert	AV	0.0	48.0	54.0	-6.0	High Ch, EUT Horz, BLE
2384.823	32.4	-6.4	1.5	303.0	1.9	20.0	Horz	AV	0.0	47.9	54.0	-6.1	High Ch, EUT on Side, BLE
2385.280	32.4	-6.4	1.5	339.9	1.9	20.0	Vert	AV	0.0	47.9	54.0	-6.1	High Ch, EUT on Side, BLE
2389.873	32.4	-6.4	1.5	94.9	1.9	20.0	Vert	AV	0.0	47.9	54.0	-6.1	Low Ch, EUT Vert, BLE
2388.133	32.3	-6.4	1.5	94.9	1.9	20.0	Horz	AV	0.0	47.8	54.0	-6.2	Low Ch, EUT Vert, BLE
2383.523	45.0	-6.4	1.5	94.9	0.0	20.0	Horz	PK	0.0	58.6	74.0	-15.4	High Ch, EUT Vert, BLE
2389.140	44.6	-6.4	1.5	94.9	0.0	20.0	Horz	PK	0.0	58.2	74.0	-15.8	Low Ch, EUT Vert, BLE
2384.423	44.2	-6.4	1.5	243.0	0.0	20.0	Vert	PK	0.0	57.8	74.0	-16.2	High Ch, EUT Vert, BLE
2388.677	44.2	-6.4	1.5	94.9	0.0	20.0	Vert	PK	0.0	57.8	74.0	-16.2	Low Ch, EUT Vert, BLE
2384.953	44.1	-6.4	1.5	222.0	0.0	20.0	Vert	PK	0.0	57.7	74.0	-16.3	High Ch, EUT Horz, BLE
2384.607	44.0	-6.4	1.5	339.9	0.0	20.0	Vert	PK	0.0	57.6	74.0	-16.4	High Ch, EUT on Side, BLE
2384.490	43.8	-6.4	1.5	122.0	0.0	20.0	Horz	PK	0.0	57.4	74.0	-16.6	High Ch, EUT Horz, BLE
2384.370	43.7	-6.4	1.5	303.0	0.0	20.0	Horz	PK	0.0	57.3	74.0	-16.7	High Ch, EUT on Side, BLE

CONCLUSION

Pass

Marty Marti

Tested By



End of Test Report